

## **AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Figure 1. This sheet replaces the original sheet including Figure 1.

Attachment: Replacement Sheet

## **REMARKS**

### **Status of the Claims**

Claims 1-18 are pending in this application.

Claims 1, 2, 5-7, 9, 12-15, and 18 are rejected.

Claims 3, 4, 10, 11, 16 and 17 are objected to.

### **Drawing Objections**

The Applicant respectfully requests that the Office Action's objection to Figure 1 under 37 C.F.R. 1.83(a) be removed in light of the amended Figure 1 submitted with this Response. The Office Action states that the Figure must disclose every element of the claims and that the sensor signal disclosed in claims 4, 11, and 17 is not shown. However, claims 4, 11, and 17 set forth a first output signal and a second output signal that are changed differently from each other depending on the parameters of the system. This is also stated in Paragraph [0012] which states that "[t]he output signals from the output circuits 14 and 16 can change differently in response to the measured parameter ...". The Applicant respectfully maintains that this feature is shown in currently amended Figure 1 by signals, Os' and Os'' from the output circuits 14 and 16, respectfully, being directed to the controller 18. Even though the output signal disclosed in claims 4, 11, and 17 are changed in a different manner than the output signal at other times, the output signal is still directed to the controller 18. Therefore, currently amended Figure 1 does show this feature, and the Applicant respectfully requests removal of the objection.

### **Rejection of Claims 1, 5-7, 12-14, and 18 Under 35 U.S.C. § 102(b)**

Claims 1, 5-7, 12-14, and 18 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by U.S. Patent No. 5,525,901 to Clymer. The Applicant respectfully traverses the 35 U.S.C. § 102(b) rejection of claims 1 and 14. The law is clear that anticipation requires that a single prior art reference disclose each and every limitation of the claim sought to be rejected. 35 U.S.C. § 102(b). The law is also clear that a claim in dependent form shall be construed to incorporate all the limitations of the claim to which it refers. 35 U.S.C. § 112 ¶ 4.

The Office Action states that independent claims 1 and 14 are anticipated by Clymer '901 because Clymer '901 discloses a sensing system and a method including a single sensor element (A) which provides a sensor signal (21a) that varies with a measured parameter. However, Clymer '901 requires that two sensors be used in order for the position to be determined. Col. 2, Lines 17-20. The reason that two sensors are required is a separate sensors for the vertical axis and a horizontal axis are required. Thus, Clymer '901 cannot function properly without both sensors being used. By contrast, the present invention only requires one sensor which can have variable outputs depending on which of the plurality of output circuits is used. By contrast, currently amended claim 1 is amended to further disclose that the present invention requires only one sensor to perform system diagnostics. Therefore, the present invention can function by only using one sensor, which is beneficial because the manufacturing cost is reduced by not having a second sensor. Clymer '901 fails to disclose each and every element of the present invention because Clymer '901 requires

two sensors to be used at all times and amended claim 1 and claim 14 of the present invention disclose a system using a single sensor. The Applicant respectfully requests removal of the rejection for independent claims 1 and 14.

The Office Action also states that dependent claims 5 and 12 are anticipated by Clymer '901 because it discloses a sensor element that is a magnetoresistive sensor, and dependent claims 6, 7, 13, and 18 are anticipated by Clymer '901 because it discloses a sensing system monitor for vehicle parameters. However, the above dependent claims are either directly or ultimately dependent upon independent claims 1 and 14, respectfully, and therefore include all the limitations of the independent claims which the Applicant submits are allowable. Since the Applicant respectfully maintains that independent claims 1 and 14 are not anticipated by Clymer '901, the above dependent claims are also not anticipated. The Applicant respectfully requests withdrawal of the rejection.

Furthermore, the Applicant submits that Clymer '901 does not render claims 1, 5-7, 12-14, and 18 obvious. The standard for obviousness is that there must be some suggestion, either in the reference or in the relevant art, of how to modify what is disclosed to arrive at the claimed invention. In addition, "[s]omething in the prior art as a whole must suggest the desirability and, thus, the obviousness, of making" the modification to the art suggested by the Examiner. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 U.S.P.Q.2d (BNA) 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Clymer '901 discloses a sensor system that uses two sensors for measuring and monitoring of angular position of a member in two or three axis, and does not teach, suggest, or motivate one having ordinary skill in the art to have a sensor system only

using one sensor. Therefore, the Applicant respectfully maintains that Clymer '901 does not render the above claims obvious and respectfully requests allowance of the claims.

**Rejection of Claims 2, 9, and 15 Under 35 U.S.C. § 103**

Claims 2, 9, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,525,901 to Clymer in view of U.S. Patent No. 5,136,880 to Norgauer. The Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claims 2, 9, and 15.

The Office Action states that the Norgauer '880 discloses a detector which has shared circuits 34, 36 coupled with a sensor element 16 that has multiple outputs 28, 30. However, Clymer '901 in view of Norgauer '880 does not teach, suggest, or motivate one having ordinary skill in the art to have a system where the sensor element comprises a single sensor. "The arrangement 14 includes at least two position measuring devices (16 and 18) which are referred to in the following as sensors." Norgauer '880 Col. 2, Lines 55-57. Since independent claim 9 discloses a single sensor element, and Clymer '901 in view of Norgauer '880 do not teach, suggest, or motivate one having ordinary skill in the art to have a single sensor element, the Applicant respectfully requests withdrawal of the rejection to claim 9.

Moreover, dependent claims 2 and 15 are dependent upon independent claims 1 and 14 respectfully, which also disclose a single sensor element. Again, since Clymer '901 in view of Norgauer '880 does not teach, suggest, or motivate one having ordinary skill in the art to use a single sensor, dependent claims 2 and 15 include the limitations of the independent claims 1 and 14 respectfully and the Applicant respectfully requests withdrawal of the rejection.

In view of the foregoing, the Applicant respectfully submits that claim 9 defines over the art cited by the Examiner and respectfully requests withdrawal of the rejection. Likewise, claims 2 and 15, which depend from claim 1 and 14 respectfully, further define the invention and define over the art cited by the Examiner. Thus, Applicant respectfully requests withdrawal of the rejection.

### **Claim Objections**

The Office Action states that claims 3, 4, 10, 11, 16, and 17 are objected to because they are dependent upon a rejected base claim. However, the Applicant respectfully maintains that independent claims 1, 9, and 14 are not anticipated or made obvious by the prior art and are allowable. Thus, the Applicant respectfully requests the removal of the objection.

### **Allowable Matter**

The Office Action states that claim 8 is allowable over the prior art. The Applicant thanks the Examiner for allowing this claim over the prior art. In addition, the Applicant has added new independent claims 19-22 which include the allowable subject matter of dependent claims 3, 4, 10, 11, 16, and 17. Thus, new independent claims 19 and 20 include the limitations of claim 1 and the allowable subject matter of claims 3 and 4, respectively. Likewise, new independent claims 21 and 22 include the limitations of claim 14 and the allowable subject matter of claims 16 and 17, respectively. Therefore, the Applicant respectfully submits that new independent claims 19-22 are allowable.

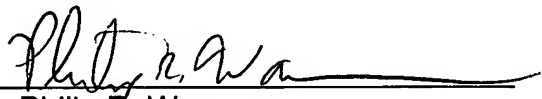
## CONCLUSION

It is respectfully submitted that currently amended Figure 1 does depict all of the elements disclosed in claims 4, 11, and 17. It is also respectfully submitted that in view of the above amendments and remarks the claims 1, 2, 5-7, 9, 12-15, and 18, as presented, are patentably distinguishable because the cited patents, whether taken alone or in combination, do not teach, suggest or render obvious, the present invention. Therefore, Applicant submits that the pending figure and claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 364-4300 if any unresolved matters remain.

Respectfully submitted,

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